

Title (en)
Apparatus for a moving workpiece

Title (de)
Gerät für ein sich bewegendes Werkstück

Title (fr)
Appareil pour une pièce mouvante

Publication
EP 0739693 A2 19961030 (EN)

Application
EP 96302894 A 19960425

Priority
US 42905595 A 19950426

Abstract (en)
An apparatus for cutting workpieces (36) moving along a path relative to the apparatus, including a guide arm (20), a tool mount (24), and two rotation mechanisms (28), (30), is provided. The guide arm (20) includes mounted links (40), (46), and at least two intermediate links (42), (44), pivotably connected end-to-end to each other to define a multiple bar linkage arrangement. The tool mount (24) is attached to the guide arm (20) at a connection of two of the intermediate links. The rotation mechanisms (28), (30) are in communication with the links (40), (46), for pivoting the links (40), (46) to cause movement of the intermediate links (42), (44), further causing the desired movement of the tool mount (24) in the path of the moving workpiece (36). Additional components include a second guide arm (22) positioned on the opposite side of the workpiece (36). The tool mount (24) is elongated to hold multiple nozzles (58) and is pivotably connected between the two guide arms (20), (22). In a second embodiment, the apparatus includes a carriage (82), a pivot frame (80) with a longitudinal guideway (88) capable of engaging the carriage (82), a translation mechanism for moving the carriage (82) along the guideway (88), a tool mount (24) attached to the carriage (82), and a rotation mechanism for pivoting the pivot frame (80). The combined rotation of the pivot frame (80) and translation of the carriage (82) causes desired movement of the tool mount (24) in the path of the moving workpiece (36). Additional components include a second pivot frame (100) positioned on the opposite side of the workpiece (36). The tool mount (24) is elongated to hold multiple nozzles (58) or other tools, and is pivotably connected between the carriages (82) of the first and second pivot frames (80), (100). The apparatus of either embodiment has 2 degrees of freedom, permitting a variety of available cutting patterns. <IMAGE>

IPC 1-7
B26D 1/56

IPC 8 full level
B23Q 1/54 (2006.01); **B23Q 1/62** (2006.01); **B26D 1/58** (2006.01); **B26D 3/10** (2006.01); **B26F 1/38** (2006.01); **B26F 3/00** (2006.01)

CPC (source: EP US)
B23Q 1/5481 (2013.01 - EP US); **B23Q 1/621** (2013.01 - EP US); **B26D 1/585** (2013.01 - EP US); **B26D 3/10** (2013.01 - EP US); **B26F 1/3806** (2013.01 - EP US); **B26F 3/004** (2013.01 - EP US); **Y10S 414/13** (2013.01 - EP US); **Y10T 74/2036** (2015.01 - EP US)

Cited by
EP2522473A1; US10611046B2; WO2021109062A1

Designated contracting state (EPC)
AT BE CH DE DK ES FI FR GB IT LI NL SE

DOCDB simple family (publication)
EP 0739693 A2 19961030; EP 0739693 A3 19970226; US 5746566 A 19980505

DOCDB simple family (application)
EP 96302894 A 19960425; US 42905595 A 19950426